

Appendix table 7-16

Comparison of correct answers given by adults and students to scientific process questions

(Percent)

Process question	Field of study	U.S. adult	Student			Question source
		2008 General Social Survey	United States	International		
1. Please look at Card A. A gardener has an idea that a plant needs sand in the soil for healthy growth. In order to test her idea she uses two pots of plants. She sets up one pot of plants as shown on the top part of the card. Which one of the pictures on the bottom part of the card shows what she should use for the second pot? ^a	Life sciences	51	70	58	TIMSS Science 2003, 8th grade	
2a. Please look at Card 5. What is the scientist trying to find out from this experiment?	Life sciences	40	38	NA	AAAS Project 2061	
2b. (Follow-up to question 2a) Why did you choose that answer?	Life sciences	38	46	NA	AAAS Project 2061	

NA = not available, question not asked

AAAS = American Association for the Advancement of Science; TIMSS = Trends in International Mathematics and Science Study

^aRespondent can answer this question by using knowledge of experiment/controlling variable or knowledge in the life sciences.

NOTES: Questions appeared in 2008 General Social Survey. Original sources of questions are TIMSS and AAAS Project 2061. For complete questions, see appendix table 7-17. For U.S. adult responses by respondent characteristic, see appendix table 7-15.

SOURCES: University of Chicago, National Opinion Research Center, General Social Survey (2008); TIMSS, <http://nces.ed.gov/timss/results03.asp>; Deboer GE and Gogos A, unpublished results of national field test assessing middle school students' understanding of controlling variables, AAAS Project 2061.

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